ABSTRACT OF THE DISCLOSURE

A system according to the present invention reads image pickup signals for all lines from a CCD image sensor and inputs these signals to a delay circuit 20. The system retrieves signals [H0D] to [H5D] for six contiguous lines and sends these signals to a vertical spatial phase synchronization filter 37 via a horizontal spatial phase synchronization filter 36. These filters 36 and 37 synchronize horizontal and vertical spatial phases. The system performs the following operations on the basis of Cy (cyan), Ye (yellow), G (green), and Mg (magenta) in each pixel data for the signal whose horizontal and vertical phases are synchronized.

$$S1r = Cy + G, \quad S2r = Ye + Mg$$

$$S1b = Cy + Mg, \quad S2b = Ye + G$$

These operations create new signals S1r, S2r, S1b, and S2b which are then sent to a C process circuit 60.